

Supporting Information

New alkaloid and aromatic glucoside from the flowers of *Cymbidium* Lunagrad Etrnal Green

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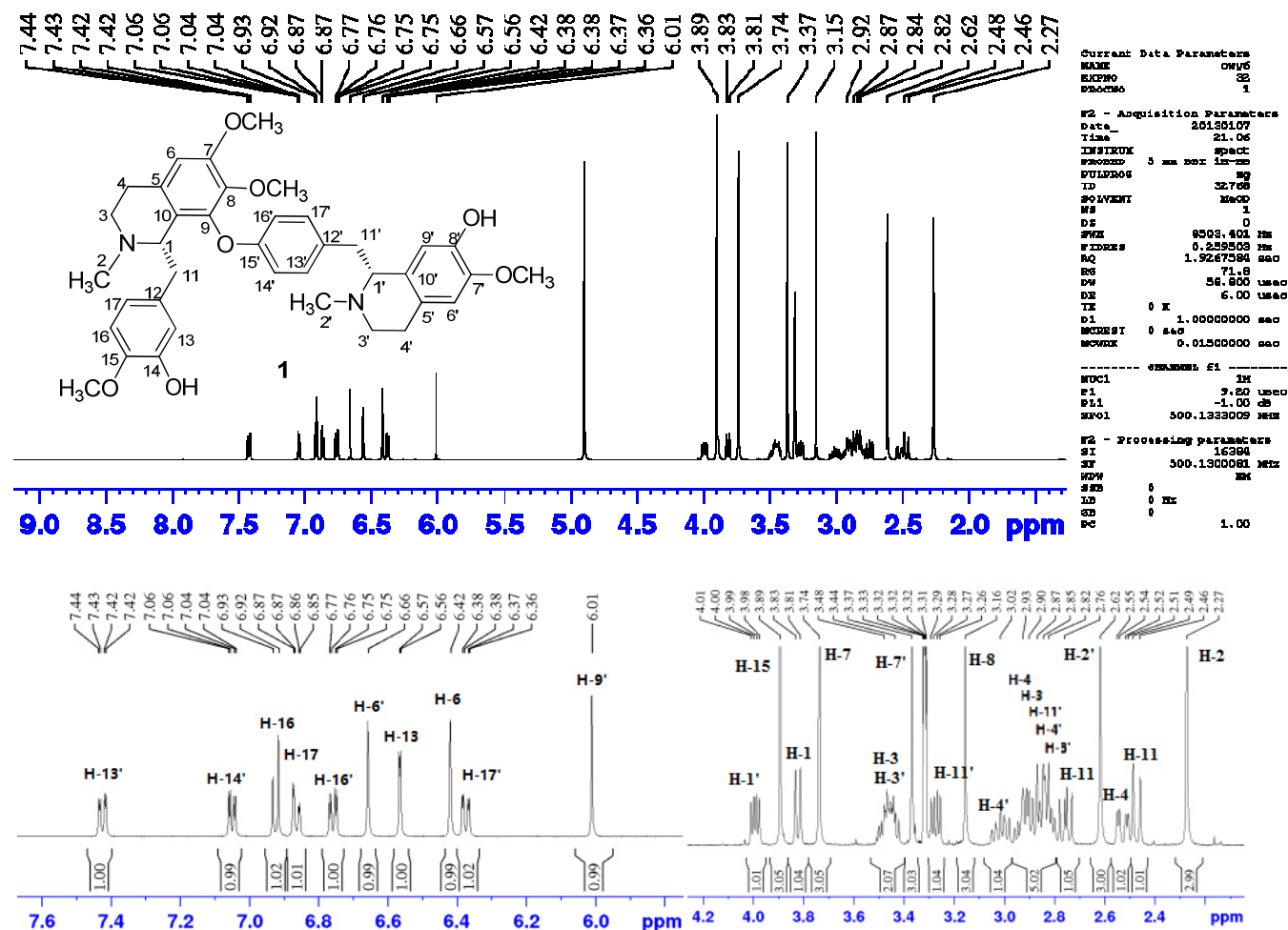
State Key Laboratory of Ecological Pest Control for Fujian and Taiwan Crops, Institute of Plant Virology, Fujian Agriculture and Forestry University, Fuzhou, Fujian, China

minganouyang@163.com

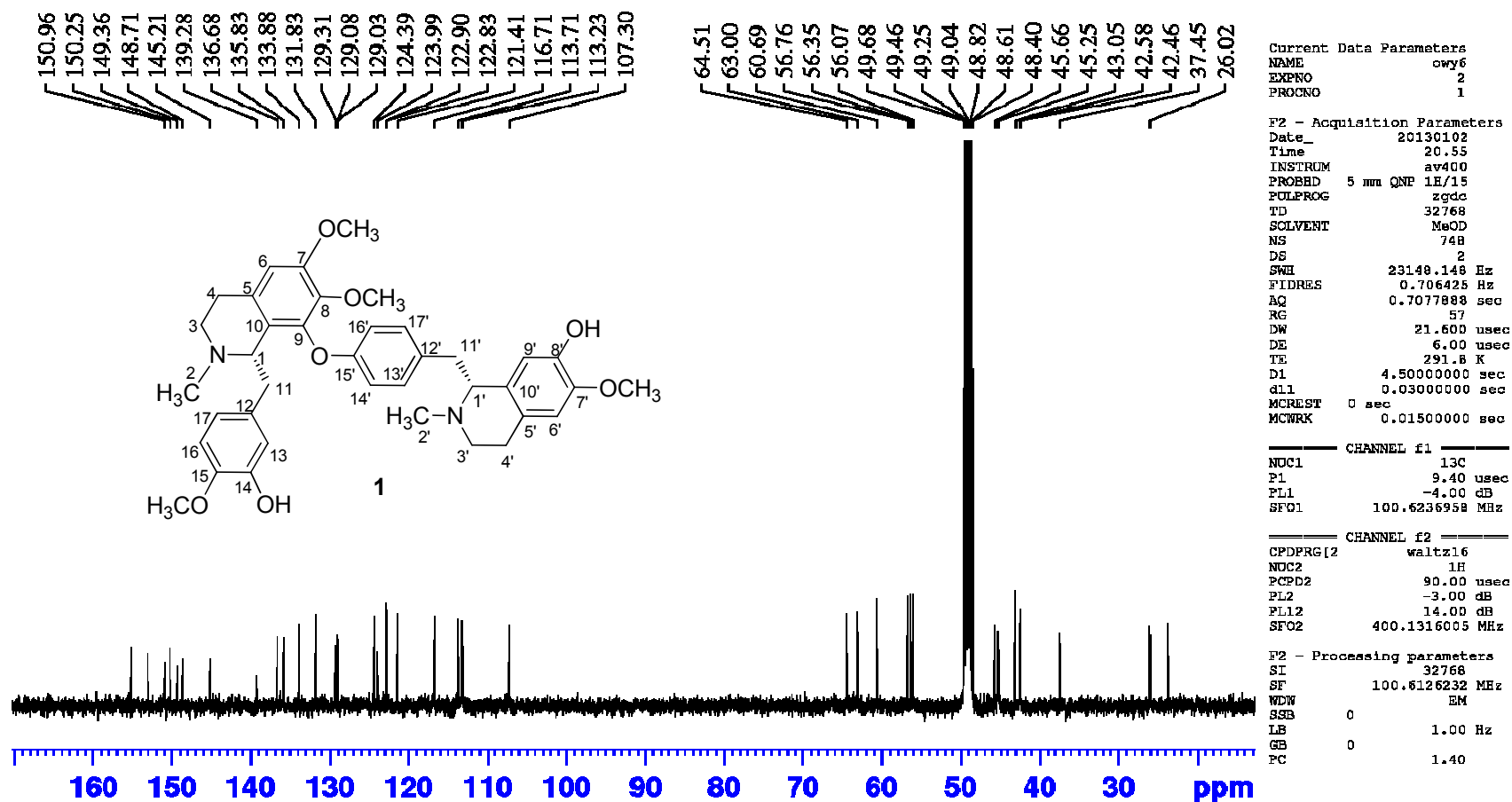
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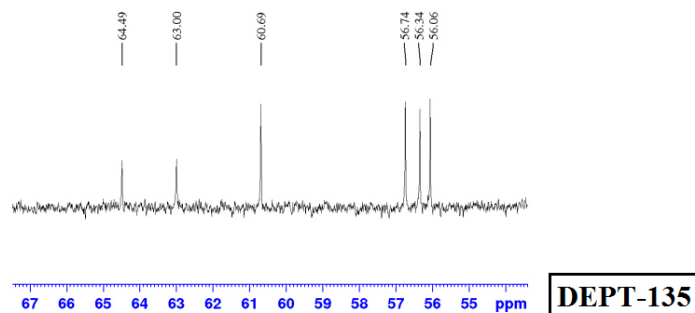
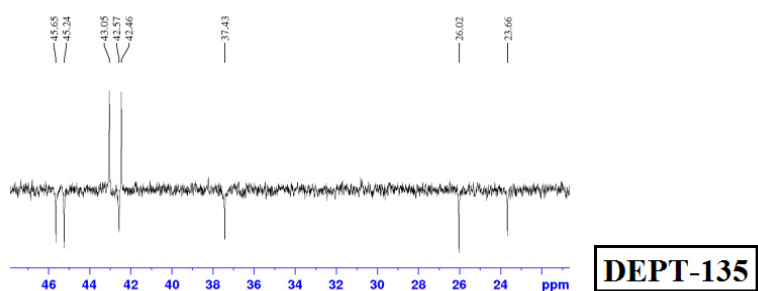
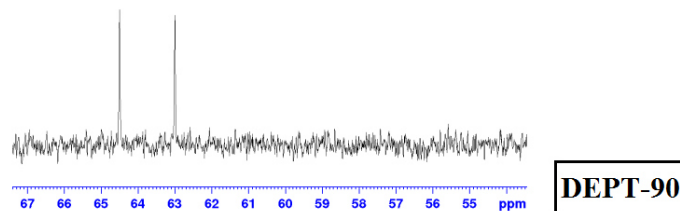
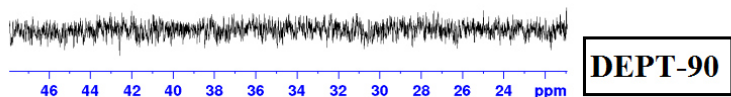
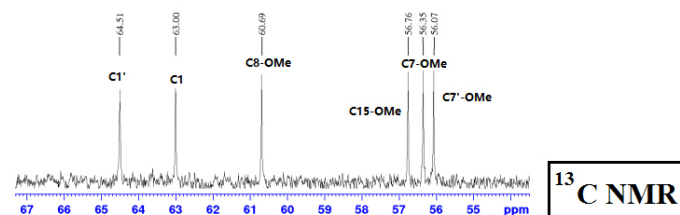
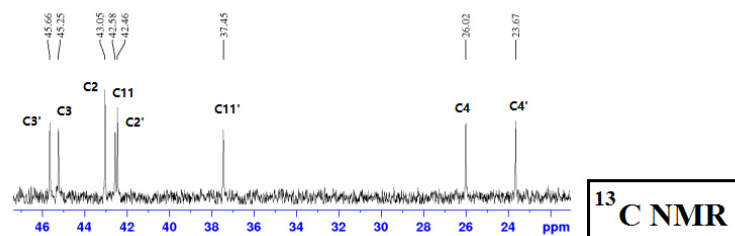
¹H NMR spectrum (500 MHz) of Lunagrad A (1) in CD₃OD.

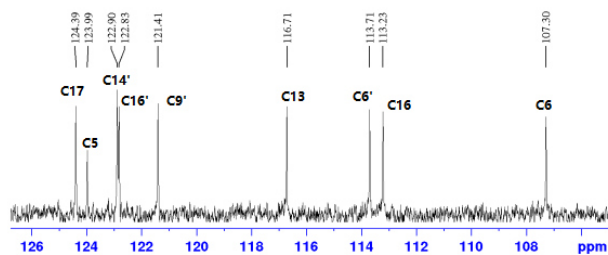


¹³C NMR spectrum (125 MHz) of Lunagrad A (1) in CD₃OD.

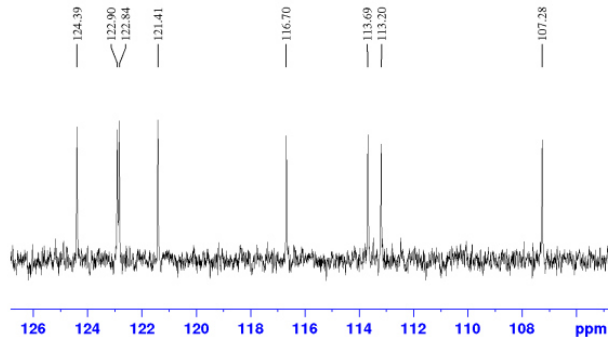


DEPT of Lunagrad A (1) in CD₃OD.

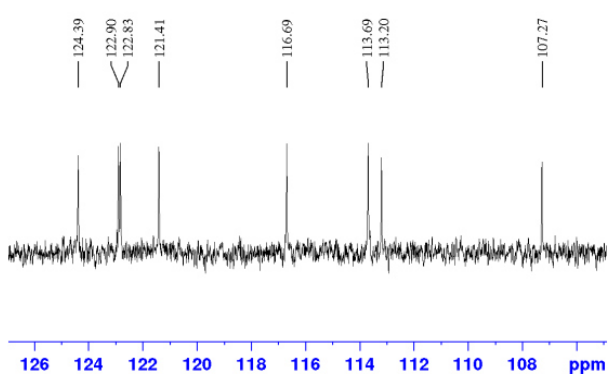




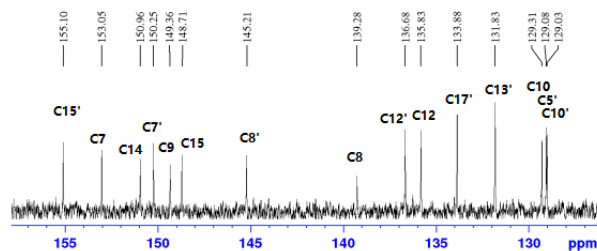
¹³C NMR



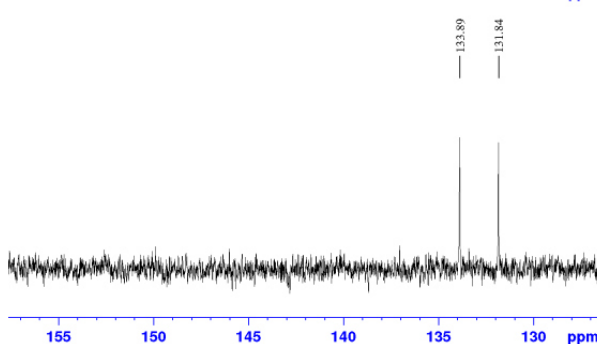
DEPT-90



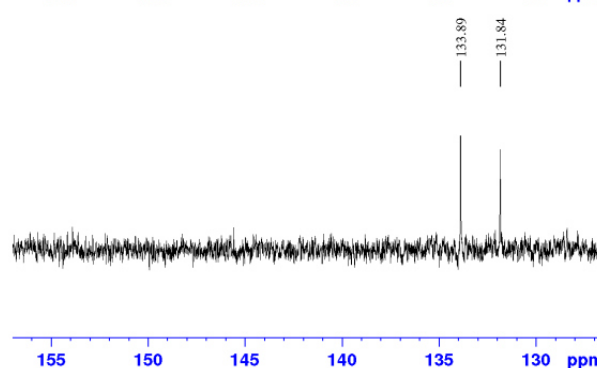
DEPT-135



¹³C NMR

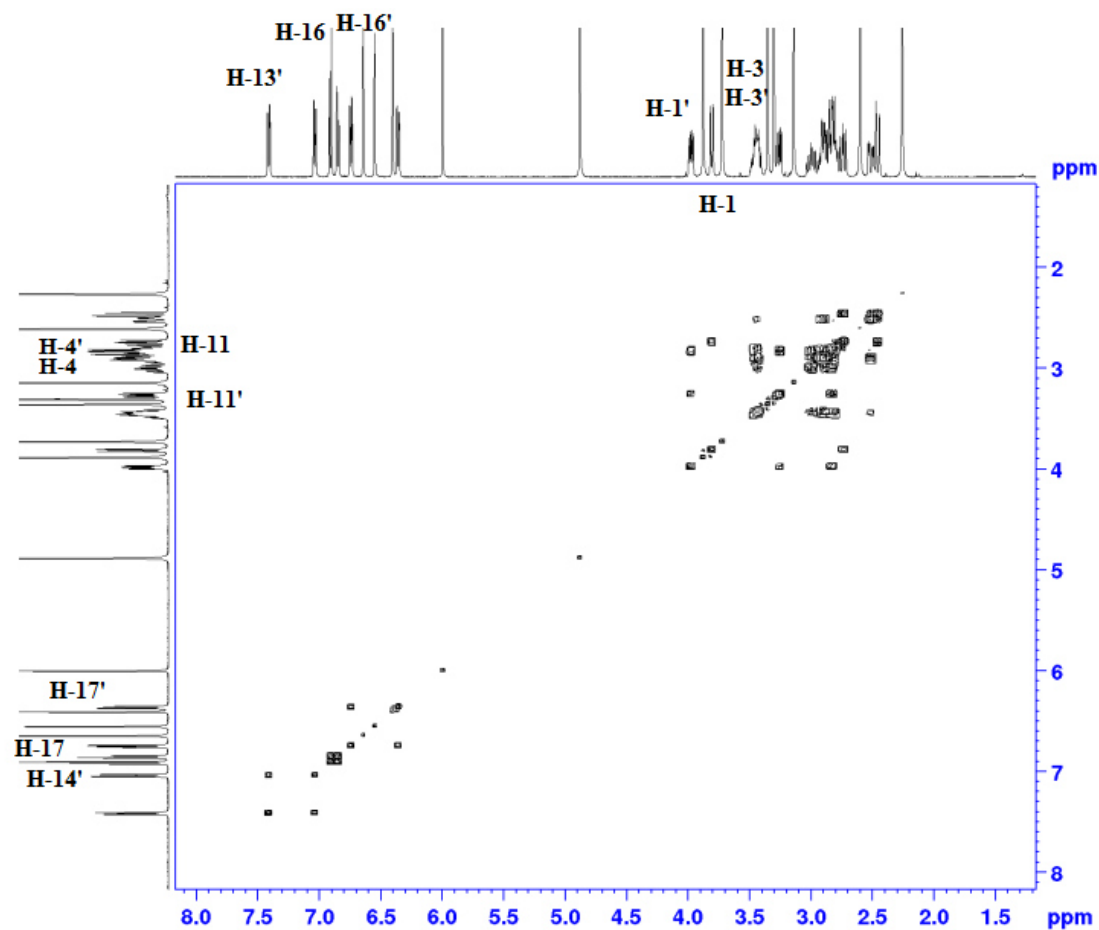


DEPT-90



DEPT-135

^1H - ^1H COSY of Lunagrad A (1) in CD_3OD .



```
Current Data Parameters
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EXPNO                29
PROCNO              1
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F2 - Acquisition Parameters
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INSTRUM    spect
PROBHD     5 mm BBI 1H-3
PULPROG    zgpg30
TD         65536
SOLVENT    MeOD
NS          640
DS          4
SWH         3501.400 Hz
FIDRES      0.131337 Hz
AQ          0.1462272 sec
RG          6144
WDW         142.800 usec
GB          6.00 usec
PC          0.000000000 sec
PD          0.000000000 sec
PL          1.000000000 sec
D16         0.000000000 sec
d13         0.000200000 sec
CROSS      0.000255000 sec
MIXPRG2    0 sec
MIXF2      1.000000000 sec

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P1                 9.20 nsec
PL1                -1.00 dB
SF01              500.1323506 MHz

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----- GRADIENT CHANNEL -----

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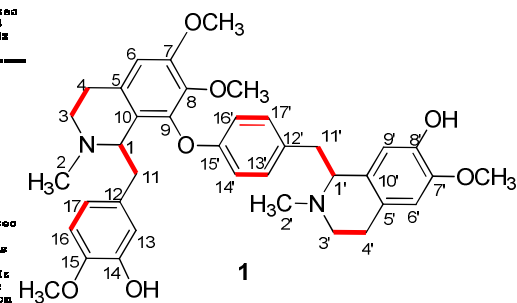
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GPY1           0 %
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GPY3           0 %
GPE1           16.00 %
GPE2           12.00 %
GPE3           40.00 %
F16            1000.00 used

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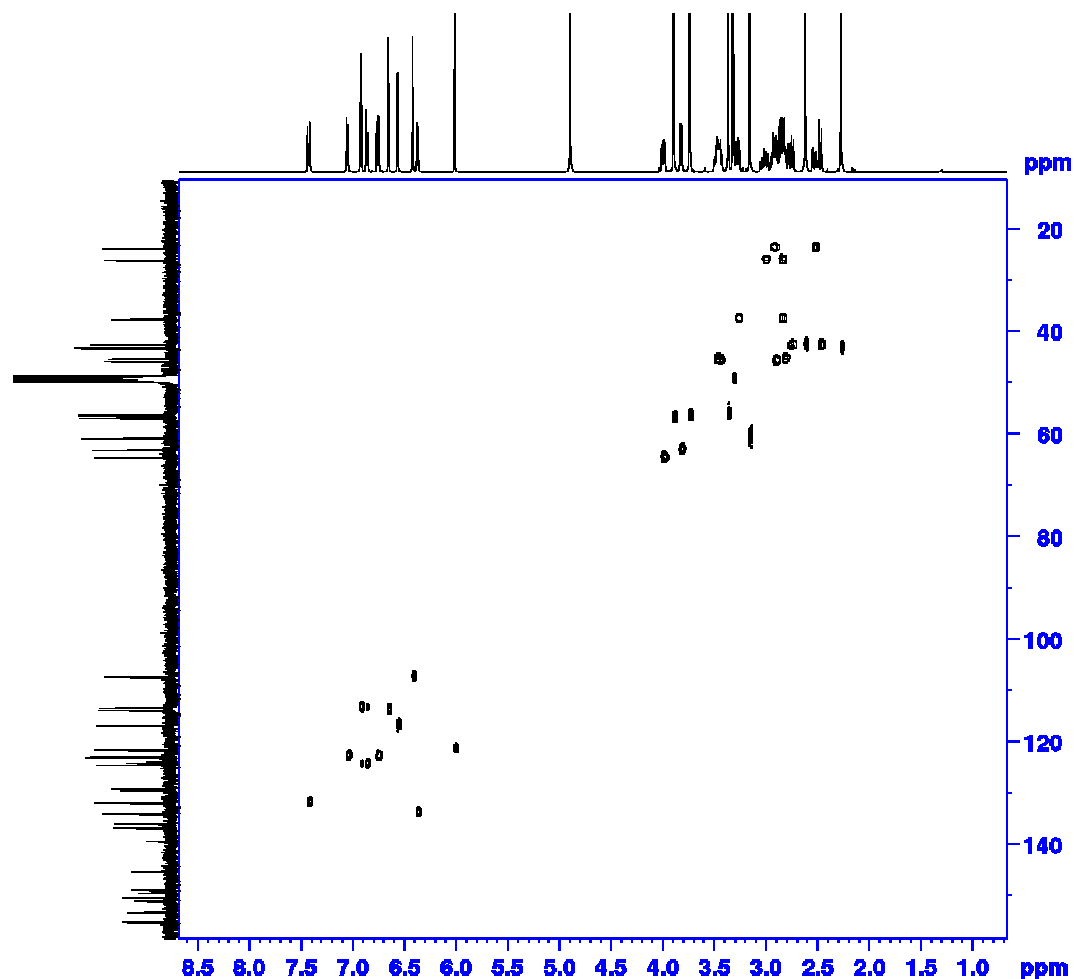
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FIDRES     54.690235 Hz
SF         7.000 ppm
EnMODE     OF
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F2 - Processing parameters
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SF                500.1300140 MHz
WDW               SINE
SSB               0
LA                0 Hz
GB                0
PC                1.00
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```
F1 - Processing parameters
SI                1024
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SF                500.0294140 MHz
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HSQC of Lunagrad A (1) in CD₃OD.

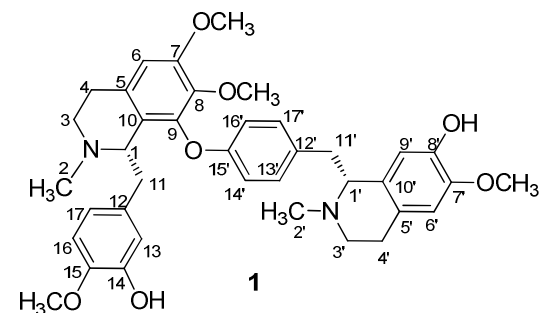


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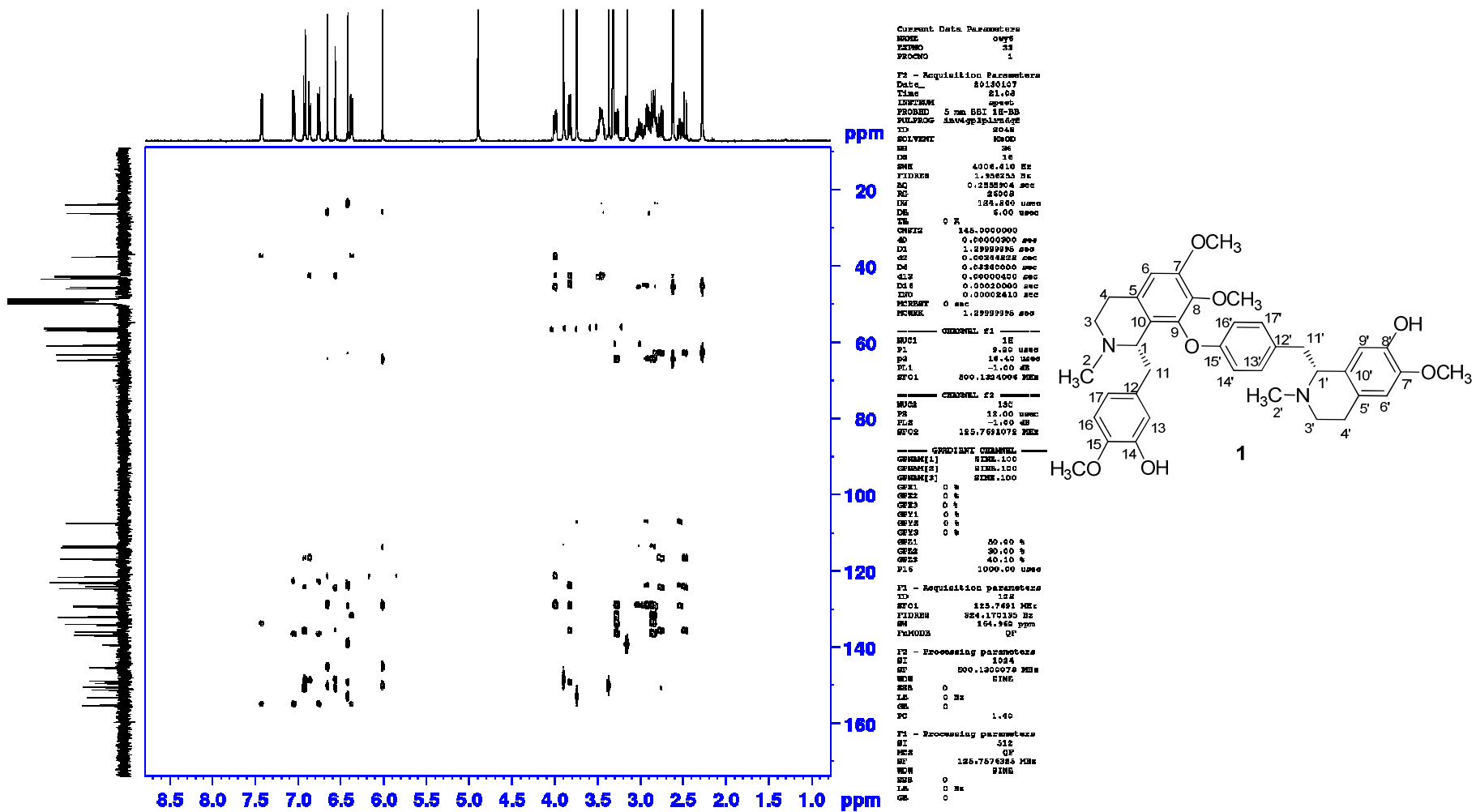
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NAME          exp1
EXPNO         3
PROCNO        1
PROCRES       1

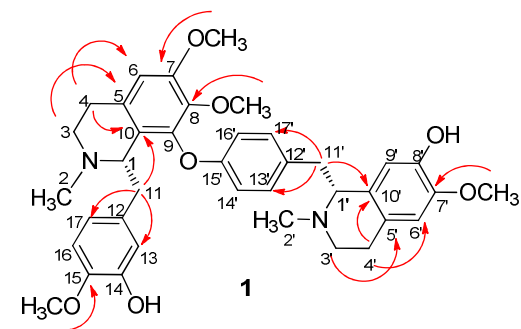
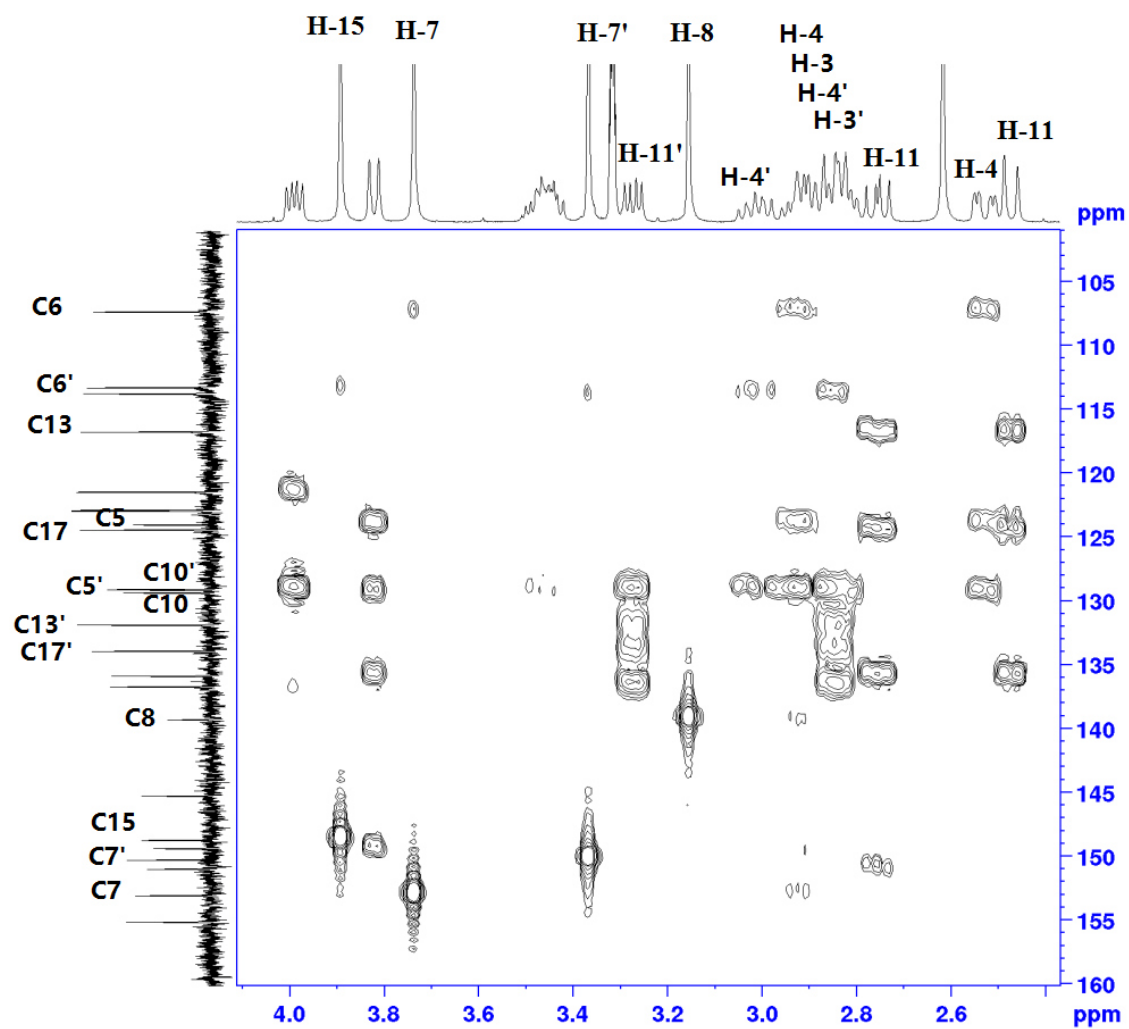
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Time          09.16
INSTRUM       spect
PULPROG       zgpg30
PROBHD1       5 mm HNP-13
PULPROG2      hsqcetwpg2
TD            131072
SOLVENT       MeOD
NS            2
DS            16
SWH           4066.110 Hz
F2ID1         131.25110 MHz
AQ            0.1379932 sec
RG            1024.0
DS2           124.820 mm
DE            8.00 mm
TE            300.2 K
CQ1           125.7603500 MHz
DE1           0.0000000 sec
D1            1.5000000 sec
D11           0.0000000 sec
d12           0.00172416 sec
d13           0.0000000 sec
d14           0.0000000 sec
d15           0.0000000 sec
d16           0.0000000 sec
d17           0.0000000 sec
d18           0.0000000 sec
d19           0.0000000 sec
d20           0.0000000 sec
d21           0.0000000 sec
d22           0.0000000 sec
d23           0.0000000 sec
d24           0.0000000 sec
d25           0.0000000 sec
d26           0.0000000 sec
d27           0.0000000 sec
d28           0.0000000 sec
d29           0.0000000 sec
d30           0.0000000 sec
d31           0.0000000 sec
d32           0.0000000 sec
d33           0.0000000 sec
d34           0.0000000 sec
d35           0.0000000 sec
d36           0.0000000 sec
d37           0.0000000 sec
d38           0.0000000 sec
d39           0.0000000 sec
d40           0.0000000 sec
d41           0.0000000 sec
d42           0.0000000 sec
d43           0.0000000 sec
d44           0.0000000 sec
d45           0.0000000 sec
d46           0.0000000 sec
d47           0.0000000 sec
d48           0.0000000 sec
d49           0.0000000 sec
d50           0.0000000 sec
d51           0.0000000 sec
d52           0.0000000 sec
d53           0.0000000 sec
d54           0.0000000 sec
d55           0.0000000 sec
d56           0.0000000 sec
d57           0.0000000 sec
d58           0.0000000 sec
d59           0.0000000 sec
d60           0.0000000 sec
d61           0.0000000 sec
d62           0.0000000 sec
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d80           0.0000000 sec
d81           0.0000000 sec
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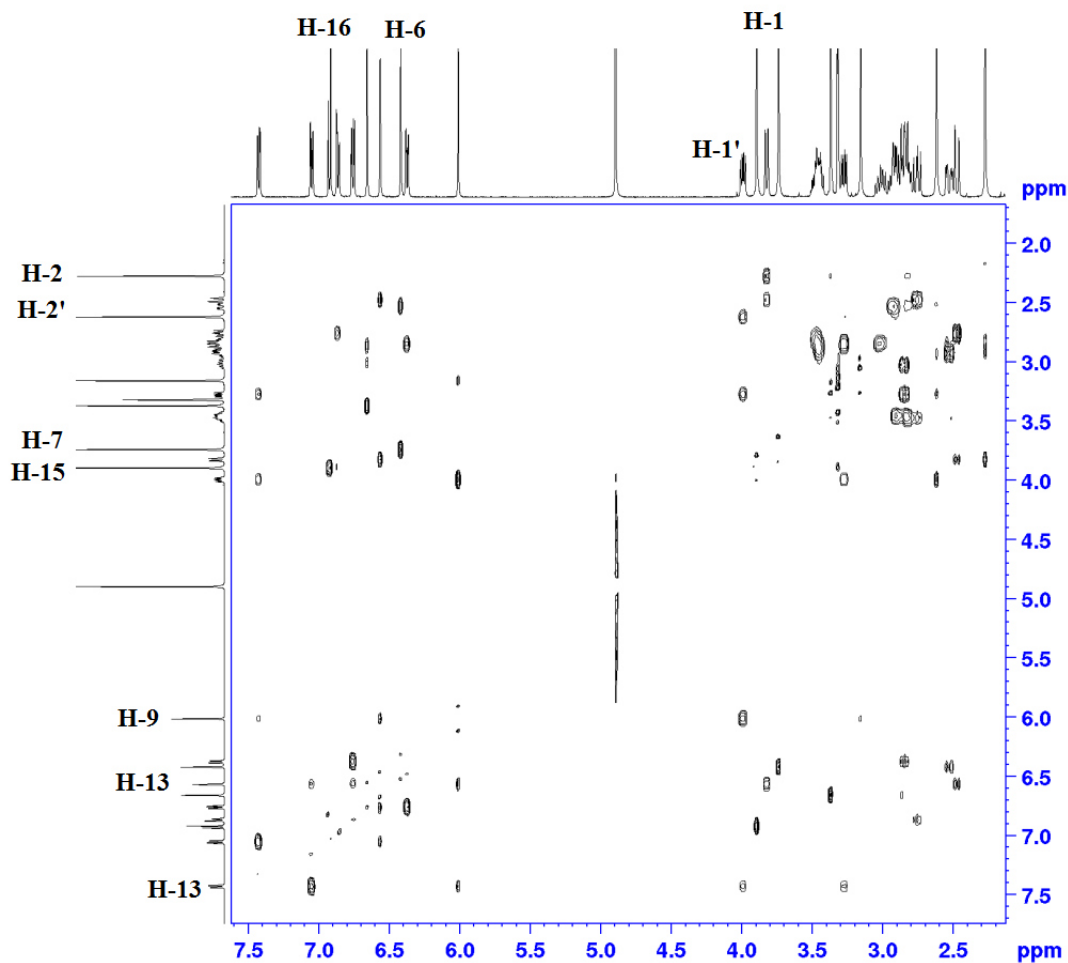


HMBC of Lunagrad A (1) in CD₃OD.





ROESY of Lunagrad A (1) in CD₃OD.



```

Current Data Parameters
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EXPNO     2
PROCNO    1

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Time      20.05
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PROBHD     5 mm BBT 1H-BB
PULPROG    crosssphy
TD          1024
SOLVENT    MeOD
NS          8
DS          4
SWH         3501.401 Hz
FIDRES      3.419337 Hz
AQ          0.1462272 sec
RG          28
DW          142.800 usec
DE          6.00 usec
TE          0 K
AQ1         0.08613110 sec
GB1         1.00000000 sec
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d13         0.00000400 sec
TNO         0.00028564 sec
MCREST      0 sec
MCWRK      0.50000000 sec
ST1CNT      0

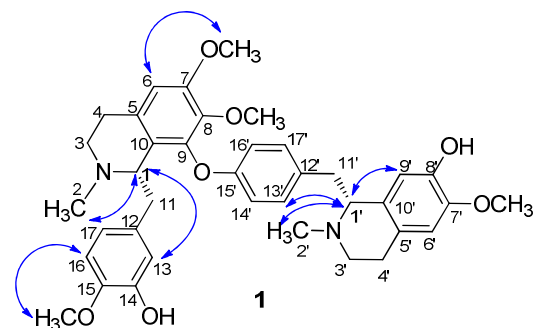
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NUC01      1H
P15         9.20 usec
P16         1200000.00 usec
PL1         -1.00 GB
PL11        22.00 cm
SFO1        500.1323506 MHz

F1 - Acquisition parameters
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SFO1        500.132 MHz
FIDRES      43.761761 Hz
SW          7.000 ppm
PRNAME      States-TPPI

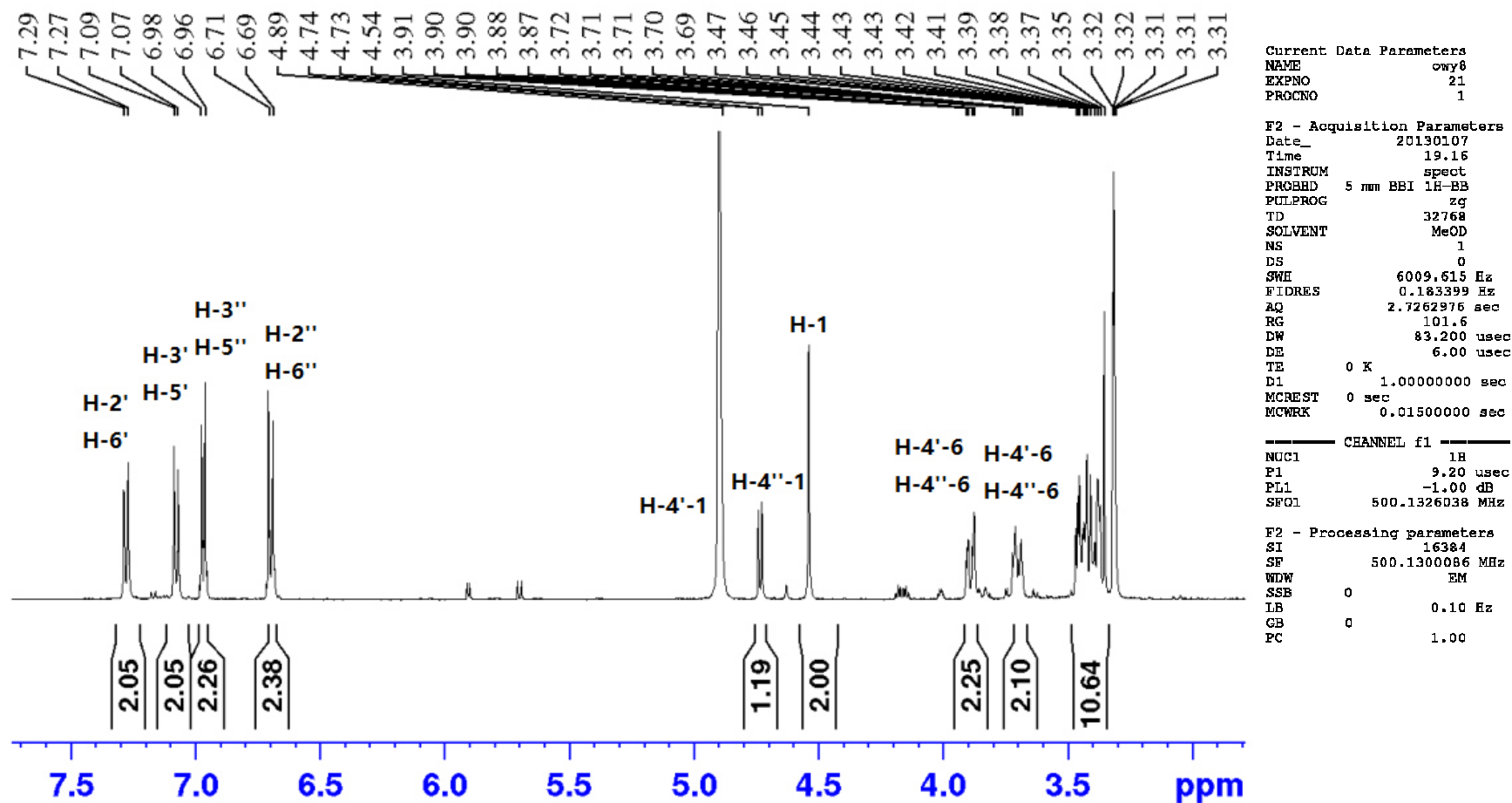
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F1 - Processing parameters
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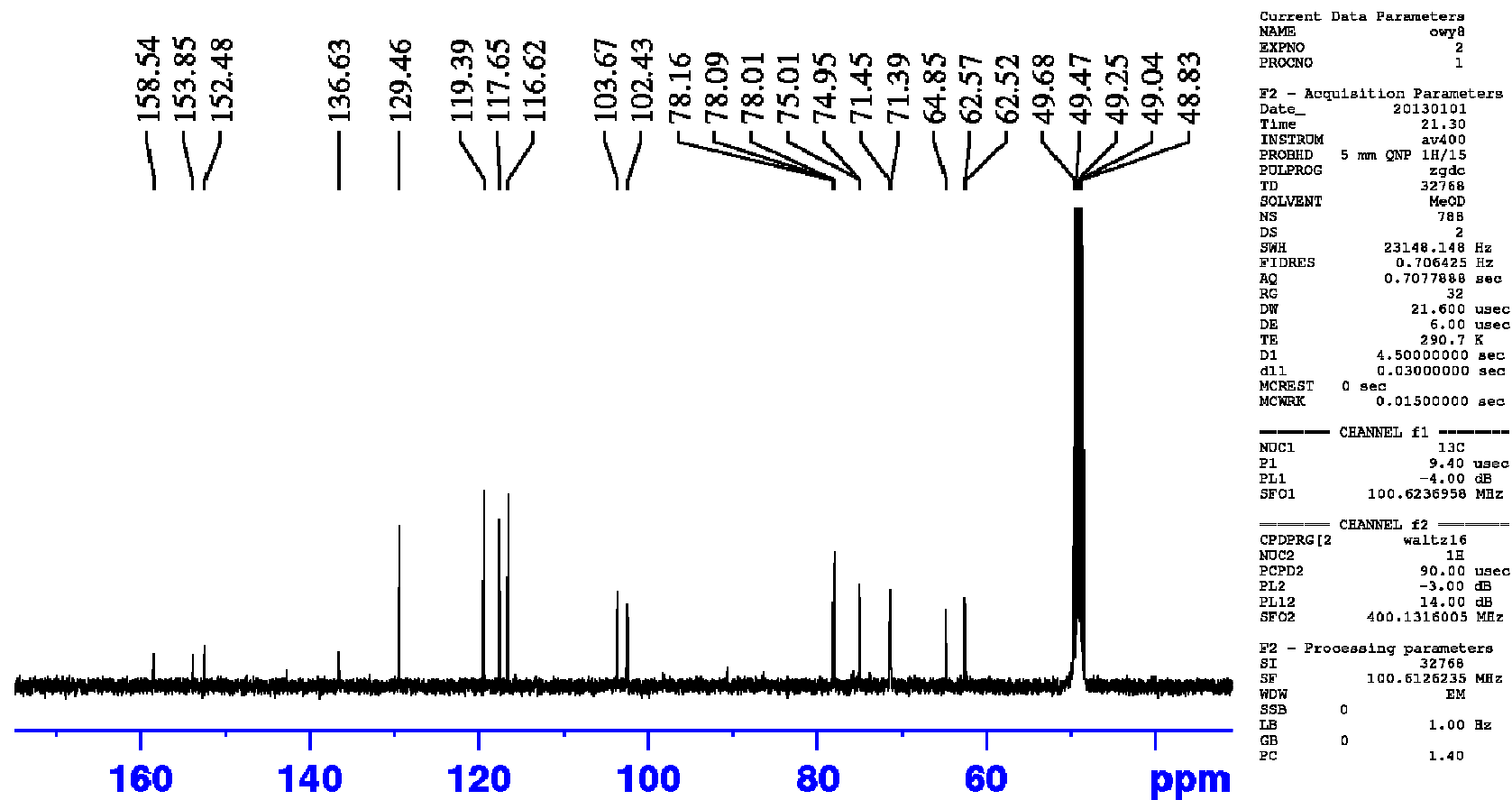
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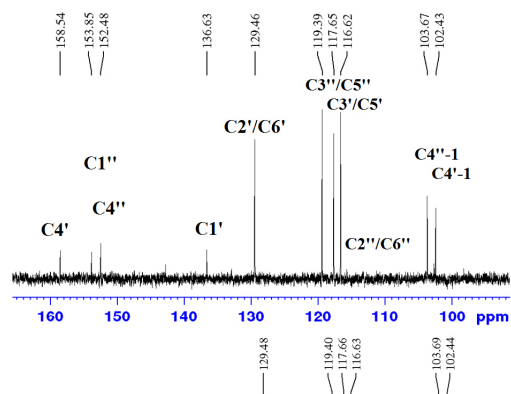
¹H NMR spectrum (500 MHz) of Lunagrad B (2) in CD₃OD.



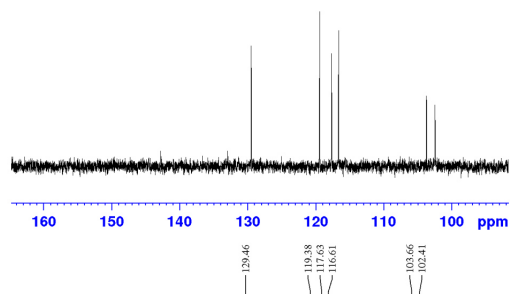
^{13}C NMR spectrum (125 MHz) of Lunagrad B (2) in CD_3OD .



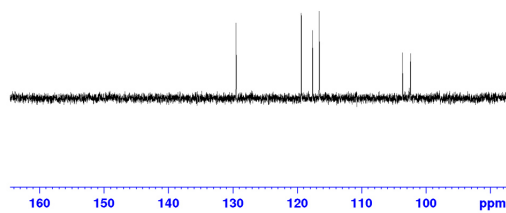
DEPT of Lunagrad B (2) in CD₃OD.



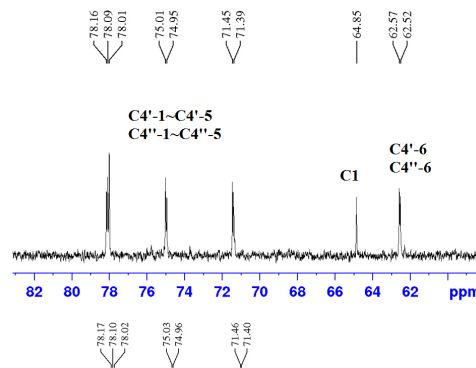
¹³C NMR



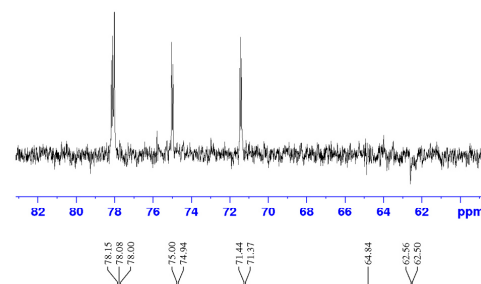
DEPT 90



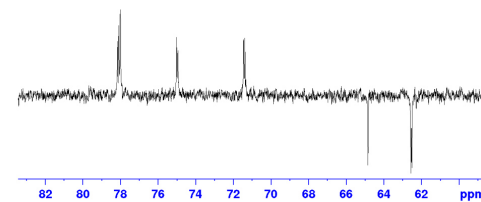
DEPT 135



¹³C NMR

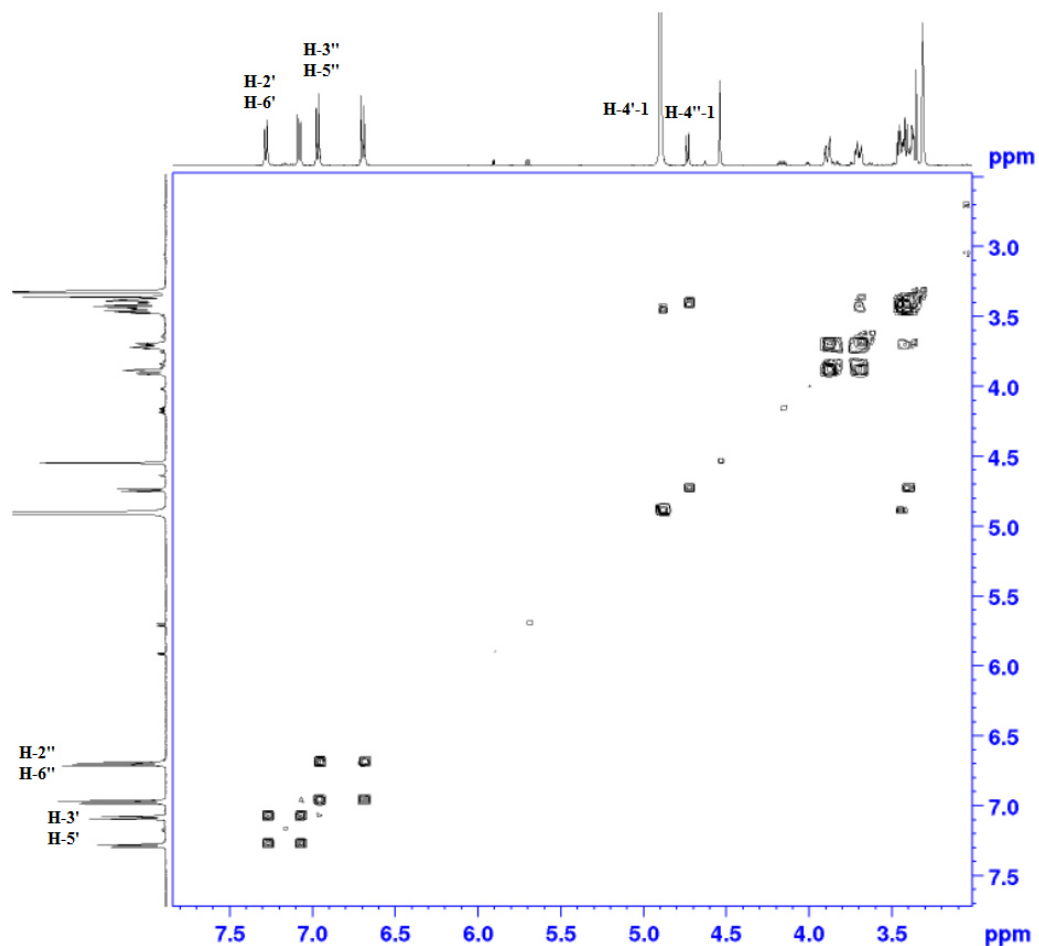


DEPT 90



DEPT 135

¹H-¹H COSY of Lunagrad B (2) in CD₃OD.



```

Current Data Parameters
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EXPNO     29
PROCNO    1

F2 - Acquisition Parameters
Date_     20100107
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TD         1024
SOLVENT   MeOD
NS         1
DS         16
SWH        6066.410 Hz
FIDRES     3.912310 Hz
AQ         0.1277552 sec
RG         81.92
IN         124.000 usec
DE         6.00 usec
TE         300 K
DO         0.0000000 sec
DI         1.0000000 sec
d19        0.0000000 sec
d16        0.0000000 sec
d20        0.0000000 sec
MCPRST     0 sec
MCPRK      1.0000000 sec

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PL1        -1.00 dB
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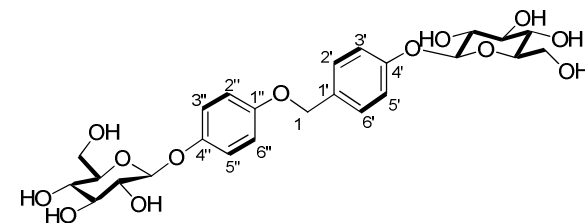
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GPR6       0 %
GPR7       0 %
GPR8       0 %
GPR9       0 %
GPR10      15.00 %
GPR11      13.00 %
GPR12      40.00 %
P15         1000.00 usec

F1 - Acquisition parameters
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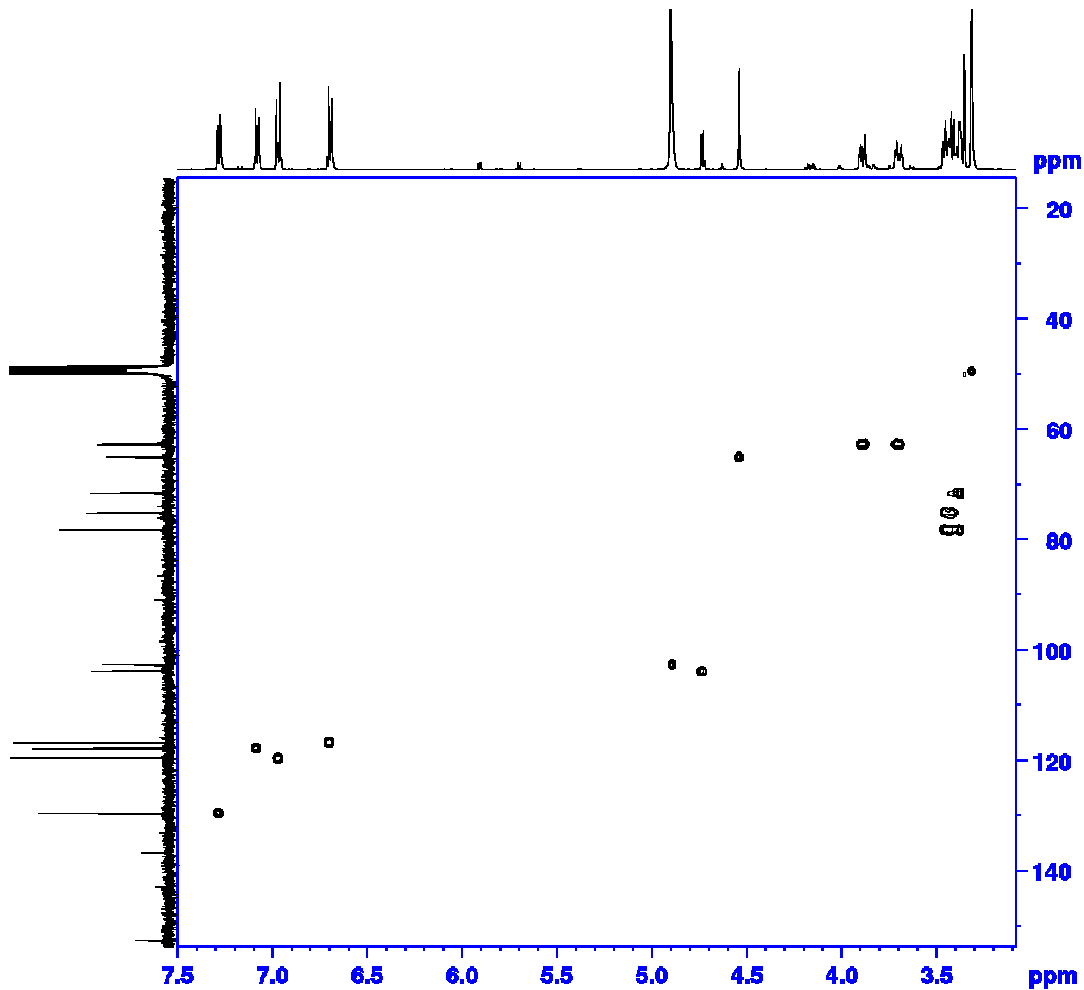
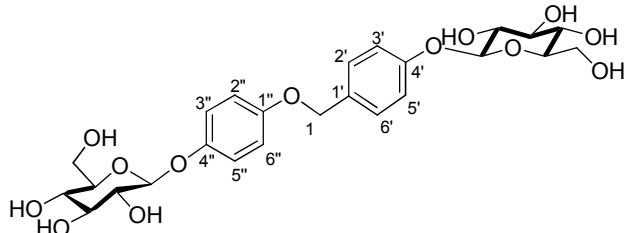
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SSB        0 Hz
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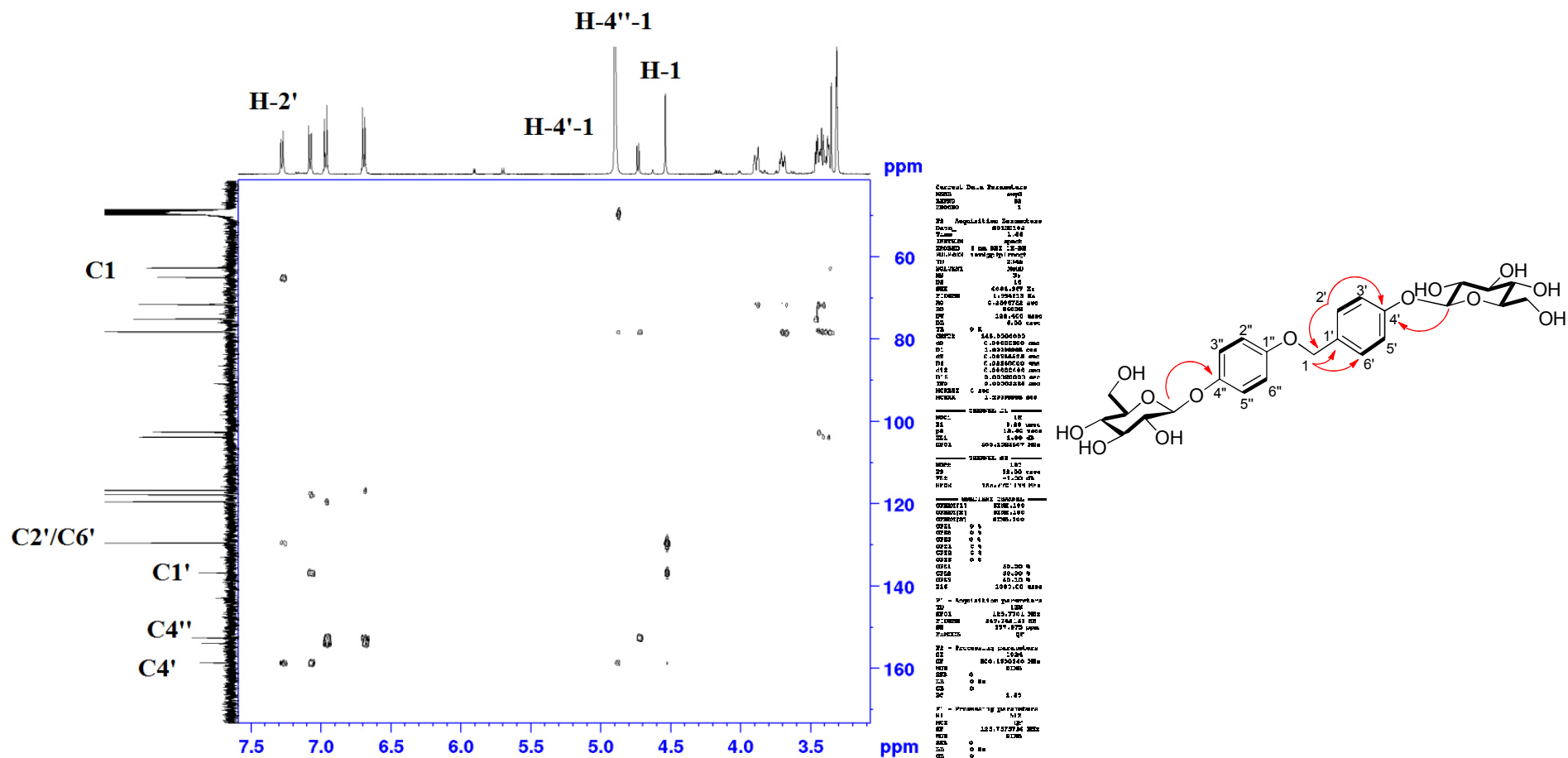
```



HSQC of Lunagrad B (2) in CD₃OD.

[illegible]

HMBC of Lunagrad B (2) in CD₃OD.



ROESY of Lunagrad B (2) in CD₃OD.

